Quality Management System Certification
50 100 8093 - Rev. 02

V.N.E. Srl Via Biagioni, 371 – 55047 Querceta (LU)
Tel. +39 0584 742530 Fax +39 0584 768333 - www.vne.it

TECHNICAL AND OPERATING MANUAL

2p MaxiChanger

INDEX

1. Preliminary remarks
2. Introduction
3. Manual purpose and structure
4. Manual use
5. Maker and machine identification
5.1. Maker
5.2. Machine
5.3. Component list
5.4. Year of fabrication
6. Technical data
6.1. System technical features
6.2. Technical features of the "Omnibox"control board
6.3. Technical features of the internal supply
6.4. Hopper technical features
6.5. Technical features of F30/F40 bill validator
6.6. Display technical features
7. Environmental conditions
7.1. Temperature
7.2. Humidity
7.3. Altitude
8. Security standards
9. Installation
9.1. General standards of installation
10. Use procedures
11. Maintenance
12. Out of order placing instructions
13. Transport and handling
14. Conformity declaration
15. Enclosures
16. Configuration and data visualization
17. Security
18. 2p/MaxiChanger differences

Attention: This sign means that before doing any operation it is necessary to read and follow all the security information included in this manual. When in doubt, please contact our skilled staff.

1. Preliminary remarks

V.N.E. S.r.l. does not accept any responsability when:

- Operative procedures of transport, maintenance and peripheral installation included in this manual are not respected.
- The system has been used in operative conditions which are not included in those limits established for the respect of environmental conditions.
- The damage occurs after repairs or changes made by non authorized staff.
- The damage is the result of a system natural deterioration.

2. Introduction

It is forbidden to reproduce, convey or copy any parts of this manual for public and/or private use without V.N.E. S.r.l permission. All the information included in this manual concern data referring to V.N.E. S.r.l. V.N.E. S.r.l. reserves the right to modify this document without notice.
The machine is created and planned in conformity with 2004/108/CE 2006/95/CE Community guidelines: we followed CEI EN 55014-1:2007 CEI EN 55014-2:1998+ /A1+/IS1 CEI EN 61000-3-2:2007 CEI EN 61000-3-3:1997+//A1+/A2/IS1 CEI EN 60335-2-82:2005 rules for the CE requirement control.

Transitory decreases of performances could occur in the case of particular interferences from the outside, such as electrostatic discharges or transistors on the supply lines. The machine will regularly work as soon as the trouble stops. The machine should be used indoor and for those purposes established in the planning.

V.N.E. S.r.l. does not undertake any responsability for accidents or damage caused by a wrong or non authorized use of the machine.

3. Manual purpose and structure

- The aim of this manual is to avoid states of risk for the installation, use and maintenance staff and to avoid environmental conditions and behaviours which could damage the coin changer machine or its component parts.
- This manual is part of the machine and should always be at operative and working staff disposal.
- This machine should be used only and exclusively indoor and for the purposes established in the planning.
- If you do not respect prescriptions of this manual, you will lose the warranty.

4. Manual use

All the information about installation and maintenance address to technical staff, trained in electricity and plant engineering. It is necessary to read carefully this manual and keep it in an easily accessible place in order to consult it and use the machine in a correct and secure way.
This manual is made up of 13 pages.

5. Maker and machine identification

5.1 Maker: **V.N.E. S.r.l.**
Via Biagioni, 371
55046 Querceta (LU) – Italia
P.I. 01840210460

5.2 Machine: "**2p/MaxiChanger**" Change machine

5.3 Component list

- Azkoyen Hopper mod.T3 or similar hopper
- Genna Group power supply mod. PS-8250X – MW 610 Mean Well
- Bill validator (EDUE Italia mod. F30/F40 ccTalk , Cash code)
- V.N.E. S.r.l. Omnibox control board
- V.N.E. S.r.l. ccTalk interface boards
- Lcd 20x4 display

5.4 Year of fabrication: 2011

6. Technical data

6.1 System technical features

Supply tension	230 V ~
Frequency	47-63 Hz
Max energy consumption	110 W
Protection fuse	1,6A
Weight	80 Kg
Dimensions	350x1350x320 mm

6.2. Technical features of the "Omnibox"control board

PCB dimensions	99x78 mm
Power supply tension	5 Vdc
Working frequency	4 Mhz

6.3 Technical features of the internal supply

Supply tension	176-264 VAC
Frequency	47-63 Hz
Output tensions	+5Vdc 12A
	+12Vdc 8A
	+24Vdc 4A

6.4 Hopper features

Supply tension	24Vcc
Max consumption	1A
Working temperature	+5°C a +55°C
Dimensions	130x290x230mm
Weight	1,8Kg

6.5 F30/F40/Taiko bill validator

Supply tension	24Vcc
Max consumption	1A
Working temperature	0°C a +50°C
Dimensions	138x81x128 mm
Weight	1,1Kg

6.6 Display

Supply tension	5Vcc
Max consumption	50mA
Working temperature	0°C a +50°C
Dimensions	121x41 mm

7. Environmental conditions

7.1 Temperature: Operating: 10° to 40° C
Storage: 5° to 55°C

7.2 Humidity: Operating: 10% to 95%
Storage: 5% to 95%

7.3 Altitude: Operating: until 4.000 m
Transport: until 10.000 m

8. Security standards

Before installing the machine or working on it, it is necessary to read carefully this manual. When the machine is installed or serviced by a different staff, the owner should ensure that this staff has read the instructions of this manual.

It is necessary to follow these prescriptions in order to avoid any danger of accident :

- Start the machine only after having controlled the adequacy of installation and the conformity with the information included in this manual.
- Do not install the machine in areas subject to sudden changes in temperature and humidity.
- Check the visibility and good condition of labels referring to security.
- Place the machine at a minimum distance of 15 cm from any obstacle and not upon blankets or other soft surfaces. Moreover, avoid to install the machine near radiators or enclosed areas which do not have a suitable ventilation.
- Do not switch on the machine if it is not completely installed in the correct way.
- Supply the machine with the electric power supply indicated on the proper tag. When in doubt, please contact the technical assistance service.
- Make sure the fuses on the electric supply system are exclusively replaced by fuses of the same type in order to avoid risks of fire. It is forbidden to use different fuses or materials.
- The machine should be appropriately connected to the ground in order to avoid electric shocks due to malfunctioning.
- If the supply cable is damaged, replace it immediately with another similar cable. Do it after having disconnected the main supply.
- Do not put any objects on the supply cable and control that the cable is not in a passageway. The cable should not be wrapped or tied.
- Do not use the machine near water or other kind of liquids. If some liquid goes into the machine, diconnect immediately the cable from the socket. Do not touch metal parts of the machine and ask technical staff to control the machine before using it again.
- Do not lay any container with liquids on the machine even if it the device is out.
- Disconnect the supply cable from the socket during storms.
- Do not service inside the machine but contact the skilled staff.
- Disconnect the supply before clearing the machine externally. Do it by using a dry cloth.

Do not leave the keys in the machine and keep them in an area not easily accessible to the user.

9. Installation

9.1 General standards of installation

- Place the machine in areas being out of atmospheric agents, in a vertical and firm position, out of the rays of the sun, in not extremely humid or dusty places and far from air conditioners or radiators.
- Fix the machine to the wall by using the screws included in the equipment.
- The fixing holes are in the back of the machine.
- Check whether the wall where "2p/MaxiChanger" will be fixed is suitable! If the screws are assembled in a wrong way or the surface is not suitable, there could occur damage to people or things whose V.N.E. S.r.l. is not responsible for!
- Do not place the machine next to the emergency exits or instruments used to put out the fire.
- Make sure that the ventilation system respects the right distances from surrounding walls and furniture.
- Take precautions against any possible seepage in the machine.
- Supply the machine with the power supply reproduced on the tag. Check the electric system compliance with current prescriptions concerning plant engineering (L 46/90).
- OUT OF ORDER PLACING, REGULATION, REPAIR and DIAGNOSTICS procedures should be done by authorized technical staff.

10. Use procedures

- Insert one or more banknotes in the bill validator and/or one or more coins in the coin validator.
- Wait for the visualization of the amount on the display.
- Select the denomination coin/token to obtain by pushing the right button.
- Wait for the exit of all the amount of coins/tokens.
- Withdraw coins/tokens and eventually the change.
- Do not shake the machine: it contains fragile parts.
- Use the bill validator in the right way by inserting only the acceptable banknotes.
- For smokers: do not place any cigarette on those parts of the machine which are not suitable.

11. Maintenance

Ordinary and extraordinary maintenance and takings withdrawal should be done by qualified staff who has to observe the following prescriptions.

- Do not modify the machine without previous maker authorization
- In case of repair or substitution of components, use only spare parts which have been approved by V.N.E.
- Before starting any maintenance intervention, make sure that the machine is out and the supply cable is disconnected from the system.
- Disconnect the supply system and the main connectors of the machine by seizing connectors and not individual cables.
- Before connecting or disconnecting any connector or plug make sure that the machine switch is OFF.

Make sure that the front of the machine is separated 50 cm at least from any other obstacle in order to guarantee the substitution of internal parts of the machine (supply, board, etc..)

REPAIR: Machine repairs should be done only by technical and skilled staff or in our repair centre.

Some power supply parts are still hot or keep dangerous tensions for a period of time. Even if the machine is switched off, there are risks of burns or electric shocks. Do not touch accidentally these parts.

12. Out of order instructions

- Do not dispose of the product among waste material. It is necessary to dispose the product following rules for particular waste products.

13. Transport and handling

- Transport and handling procedures should be done by trained staff able to use specific means. If you do not respect this recommendation, there would be physical damage to people or to the machine.
- The machine has parts which are susceptible to vibrations and/or crashes. It is necessary to pay attention to transport and moving.
- The machine should be transported in closed means and it should be properly fixed.
- It is forbidden to lift the machine with cables or belts because it does not have specific points of fixing.
- If you want to move the machine in different places, make sure power supply cable is disconnected and well preserved.

14. Conformity declaration

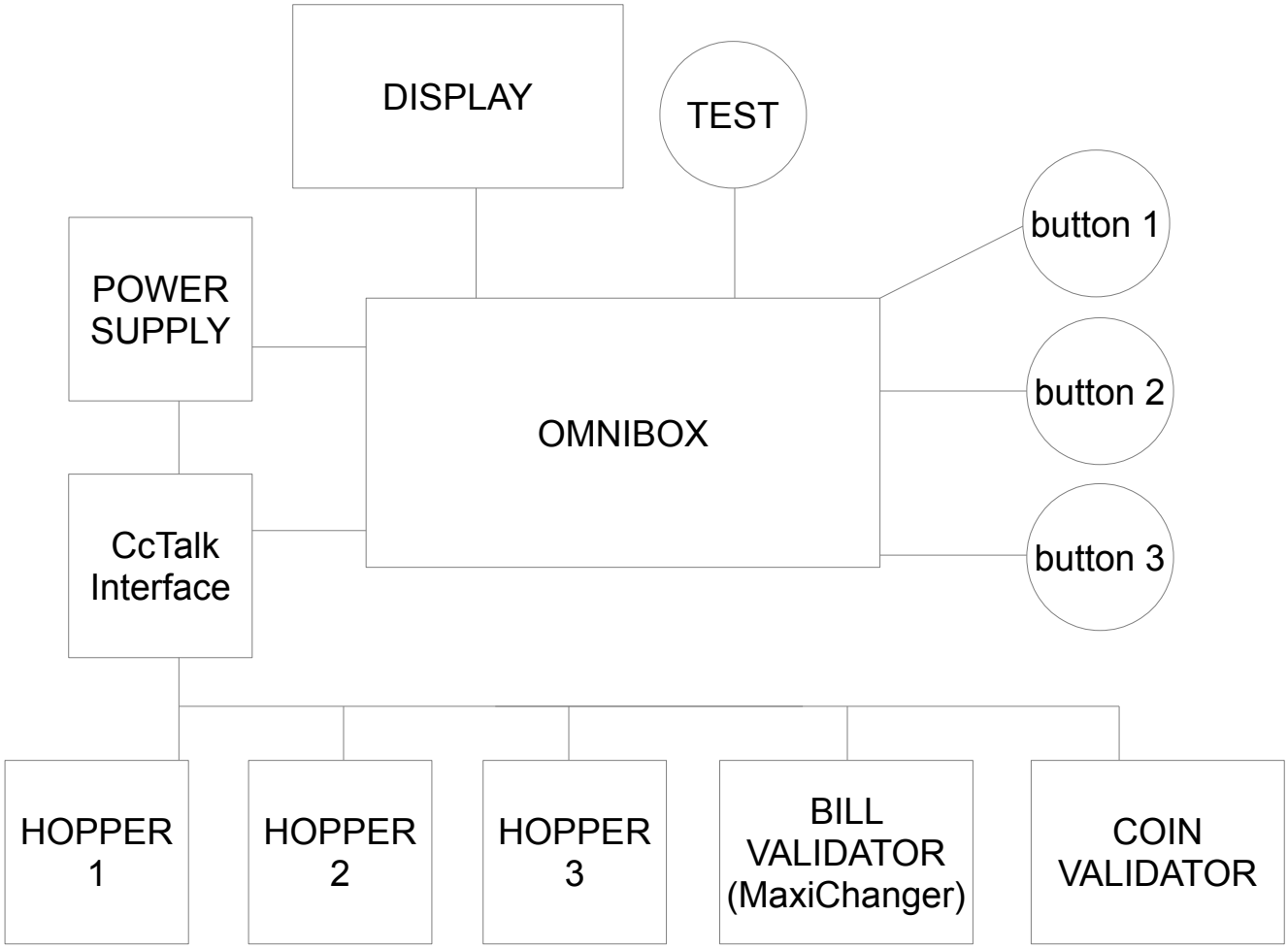
Firm:	**V.N.E. S.r.l.** **Via Biagioni, 371** **55046 Querceta (LU) – Italy**
Machine:	**"2p/MaxiChanger" Change machine**
Managing director:	Nicolino Verona
REGULATIONS(1)*:*	EN 55014-1: Emissions EN 61000-3-2: Emissions: Harmonic EN 61000-3-3: Emissions: tension fluctuations/Flicker EN 55014-2: Immunity EN 60335-1: Security of electric devices for domestic use and similar.

(1)These rules include the variations related to the date of this document.
The maker states that the product suits the above-mentioned regulations and observe the main requirements demanded by 2004/108/CEE and 2006/95 CEE Directives.

Verona P.I. Nicolino

THE MAKER RESERVES THE RIGHT TO MODIFY THE MACHINE DESCRIBED IN THIS MANUAL AT ANY TIME AND WITHOUT NOTICE AS FOR TECHNICAL SPECIFICATIONS.

15. Enclosures



V.N.E. S.r.l.

"2p/MAXICHANGER" USER MANUAL

The **2p/MaxiChanger machine** has been created to be a device simple to use and at the same time reliable and secure .
You can configure the machine through a configuration menu. You enter into the menu by pushing the test button inside the machine.
You can set the value of each hopper with **coin/token** from 0 to 10£ with "step" 1cent.
You can independently set the two hoppers with **coins or tokens**.
It is possible to set different **Bonus** schedules for those hoppers which have been set with **token**.
In the case one hopper is set with **token** and the other with **coin**, the machine can dispense the rest in tokens.

16. Configuration and Data Visualization

To enter into the programming menu and visualization data push the **TEST** button (check chapter .17) which is inside the machine:
the three external dispensing buttons (hopper 1 left, hopper 2 center, hopper 3 right) correspond to **PREV** , **ENTER** and **NEXT**.

```
->Accounting<-
Peripherals
Button Test
Info
```

ENTER (right button)

```
B.in  0.00 GBP
C.in  0.00 GBP

<- Prev      Next ->
```

(banknotes in)
(coins in)

NEXT (left button)

```
1.out 0.00 GBP
2.out 0.00 GBP
3.out 0.00 GBP
<- Prev      Next ->
```

(hopper 1 coin out)
(hopper 2 coin out)
(hopper 3 coin out)

NEXT (left button)

```
1B.out 0 pcs
2B.out 0 pcs
3B.out 0 pcs
<- Prev      Next ->
```

(hopper 1 bonus pieces out)
(hopper 2 bonus pieces out)
(hopper 3 bonus pieces out)

In this page there is the partial accounting of the last zeroing.
To zero the accounting **push ENTER button for more than 5 seconds**.

Push **TEST** to come out from the menu

Push **NEXT** to enter into the peripheral menu:

```
Accounting
->Peripherals<-
Button Test
Info
```

ENTER

```
->Pay One Token
Hopper
Auto Payment
```

ENTER

```
Pay One Token
At a time
Off
```

(On activated, Off deactivated)

Push **ENTER** to activate the function "One Token at a Time". This function allows you to dispense coins only one by one by pushing the button related to the hopper, instead of the whole credit.

Push **NEXT** to come back to the previous screen.
Push **NEXT** again to enter the menu hopper:

```
Pay One Token
->Hopper<-
Auto Payment
```

ENTER

```
->Empty Hopper<-
Hopper Value
Hopper Type
Bonus Hopper
```

ENTER

```
Hopper1 0
Hopper2 0
Hopper3 0
```

By pushing the button of the hopper for more than 5 seconds you will start the emptying procedure (100 pieces at a time). Left button for hopper 1, center button for hopper 2 and right button for hopper 3.

Push **TEST** to come out, **NEXT** to pass to the subsequent option of the menu.

```
Empty Hopper
->Hopper Value<-
Hopper Type
Bonus Hopper
```

ENTER

```
->H1 00.00 GBP
H2 00.00 GBP
H3 00.00 GBP
```

In this page the coin/token value of each hopper is visualized.
To set/change the values push:

ENTER

```
Hopper 1 value:
 >0<0.00 EUR
```

Use **NEXT** and **ENTER** to set the values ; push **TEST** to come out from the menu.

```
H1 00.00 GBP
->H2 00.00 GBP
H3 00.00 GBP
```

Push **ENTER** to configure even the hopper 2, with exactly the same procedure of the previous paragraph. Then, as always, push **TEST** to come back to the previous menu.

```
Empty Hopper
Hopper Value
->Hopper Type<-
Bonus Hopper
```

ENTER

```
->H1 Coin
H2 Coin
H3 Coin
```

(Hopper 1 Coin or Token type)
(Hopper 2 Coin or Token type)
(Hopper 3 Coin or Token type)

BE CAREFUL: be sure that **BONUS** are not present in the option **COIN**

Use **NEXT** and **ENTER** buttons to configure the hoppers; Push **TEST** to come out.

```
Empty Hopper
Hopper Value
Hopper type
->Bonus Hopper<-
```

ENTER

```
->H1:C No Bonus
H2:C No Bonus
H3:C No Bonus
```

(:C represents Coins, :T Tokens)
(:C represents Coins, :T Tokens)
(:C represents Coins, :T Tokens)

Through **NEXT** and **ENTER** buttons it is possible to configure the **bonus** as the following schedule:

TABLE #	5 PIECES	10 PIECES	20 PIECES	40 PIECES
0	NO BONUS	NO BONUS	NO BONUS	NO BONUS
1	BONUS + 1	BONUS + 3	BONUS + 7	BONUS +15
2	BONUS + 0	BONUS + 1	BONUS + 3	BONUS + 7
3	BONUS + 1	BONUS + 3	BONUS + 7	BONUS + 7
4	BONUS + 0	BONUS +1	BONUS + 3	BONUS + 3

N.B.: If it is set to 0 there are not BONUS ; if the hopper is set as coin dispensing, it won't be possible to set the BONUS; the display will show the entry "NO BONUS". If the hopper is set as money dispenser, not tokens, the BONUS can not be set for obvious economical reasons; the BONUS must be removed if you want to activate the payment function "One Token at a Time".

To come out push **TEST**

```
Pay One Token
Hopper
->Auto Payment<-
```

ENTER

```
Automatic
Payment
Off
```

(On activated, Off deactivated)

Push **ENTER** to activate the function "Automatic payment". This function allows you to automatically dispense the credit when you insert the notes.

Push **NEXT** to come back to the previous screen. Then **TEST** to go the previous menu.

```
Accounting
Peripherals
->Button Test<-
Info
```

ENTER

```
H1 1  H2 1  H3 1
Test 1

DipSwitch 000000
```

By pushing the related buttons it is possibie to verify the proper working.
To come out push simultaneosly **PREV** and **NEXT**.

```
Accounting
Peripherals
Button Test
->Info<-
```

ENTER

```
->Last Notes<-
Machine Status

1.1.1
```

(software version)

ENTER to visualize the list of the last notes, **TEST** to come back to the previous menu.

```
1)0 GBP 5)0 GBP
2)0 GBP 6)0 GBP
3)0 GBP 7)0 GBP
4)0 GBP 8)0 GBP
```

List of the last eight entered notes, where 1 is the most recent and the 8 the lessrecent. Push **TEST** to come back to the previous screen. **NEXT**.

```
Last Notes
->Machine Status<-

1.1.1
```

(software version)

ENTER to visualize the machine status.

`St H1=OK H2=OK H3=OK`	**(hopper 1, hopper 2 and hopper 3 status code)**
`Er H1=0 H2=0 H3=0`	**(hopper 1, hopper2 and hopper 3 error code)**
`Er Note Acceptor=0`	**(note acceptor error code)**
`Er Coin Acceptor=0`	**(coin acceptor error code)**

Status codes: OK = ok, NP = not present, FU = full, MT = empty.
If error code is 0, no errors are present on the peripheral. Otherwise an error is present.

17. Security

For security reasons we made more complex entering in the menu to see the data and configure the machine.
In order to enter the menu you need to keep pressed the button **TEST** for more than 3 seconds.

18. 2p/MaxiChanger differences

The only real difference between **2p Machine** and **MaxiChanger Machine** is that **MaxiChanger Machine** has a Banknote Acceptor.